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SUSTAINABLE DEVELOPMENT – INTERNATIONAL FRAMEWORK – OVERVIEW AND ANALYSIS IN THE CONTEXT OF FORESTS AND FOREST PRODUCTS – BUSINESS OPPORTUNITIES AND COMPETITIVENESS – A LITERATURE REVIEW

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Abstract: Resources are important for competitiveness in business. Business models and innovation can provide new opportunities. The value chain and innovations in the sustainable development of the forest sector provide opportunities for competitiveness and business. Quality is part of competitiveness. It can provide a sustainable image to customers.

This is a qualitative research based on research articles and literature including academic sources, for example Proquest, Academic Search Complete (EBSCO), Agris, CAB Abstracts, SCOPUS (Elsevier), Web of Science (ISI) and Google Scholar and Internet sites.

Keywords: sustainable development, forests, forest products, competitiveness, CSR, business models

1. INTRODUCTION

In Finland, industrial requirements have a stable roundwood supply in the forestry service market. It has been widely supported by the forest owners, the industrial buyers, and the national forest policy. (Mattila, O. 2015)

Demand and policies are among drivers for diversification and renewal of industrial sectors based on the renewable resources globally (Mattila, O. 2015). The global forest sector is increasingly diverse and interlinked with other sectors (Hurmekoski, E., Hetemäki, L. 2013).

All forest-based sector services in Finland have extensive opportunities. New wood-based products have markets in demand along traditional products. (Hetemäki, L., Hänninen, R. 2013)

2. THEORETICAL BACKGROUND

International market pressures are among influencing factors. Certification systems with standards may act as incentives in the markets and for market access. Policy and market can be influenced with market mechanisms, for example certification with a third-party system. (Cashore et al. 2012)

Forest certification has an important role in promoting a comprehensive concept of the sustainable forest management. The forest certification impact has a role to enhance a holistic concept of sustainable forest management. It constitutes an incentive driven approach which can be utilized in different applications. (Rametsteiner, E., Simula, M. 2003)

3. SUSTAINABLE STRATEGIES IN THE EU AND COMPETITIVENESS, QUALITY AND BUSINESS MODELS IN THE BIOECONOMY

The EU Forest Strategy (2013) supports sustainable development, enhances Green Economy, contributes to Bio-based economy and combatting illegal logging, and fosters the competitiveness of the forest industry at the EU (COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - The New EU Forest Strategy in 2013). The Strategy for years 2014-2020 was developed by the EU Commission in cooperation with the EU countries and stakeholders. It promotes sustainable forest management, enhances ecosystem services, Bioeconomy and competitive Green Economy. (Forest Strategy 2014-2020)

The Bioeconomy Strategy and its Action Plan for Europe aim to a society that is more innovative, resource efficient and competitive including the sustainable use of renewable resources for industrial purposes at the same time ensuring environmental protection. It provides opportunities and resources in the framework of climate change and for sustainable economic growth. (COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Innovating for Sustainable Growth: A Bioeconomy for Europe 2012) The objective of the Finnish Bioeconomy Strategy is to generate new economic growth. The vision of the first Finnish Bioeconomy Strategy is the following: Finnish well-being and competitiveness based on sustainable bioeconomy solutions in the future. The strategic goals of the Bioeconomy Strategy are: A competitive operating environment for the bioeconomy, New business from the bioeconomy, A strong bioeconomy competence base, Accessibility and sustainability of biomasses. (Finnish Bioeconomy Strategy 2019). Nordic bioeconomy is of great economic importance. It includes industrial raw materials and products from the value chains to the markets and resource efficiency. (Co-operation Programme 2017–2020). In Finland, the role of sustainable forest management and Bioeconomy and collaboration with the United Nations, with the Agenda 2030, is highlighted in the new Finnish Forest Strategy. Quality, competitiveness, service and the role of policy is highlighted. (Kansallinen metsästrategia 2025 – päivitys VALTIONEUVOSTON PERIAATEPÄÄTÖS 21.2.2019)

4. SUSTAINABLE FOREST-BASED INDUSTRY PRODUCTS AND BIOECONOMY

The emerging wooden multistory construction, in the Nordic countries is the most evident construction-related new business opportunity in the emerging bioeconomy (Toppinen A., Röhr, A., Pätäri, S., Lähinen, K., Toivonen, R.).

The rising Bioeconomy is a significant opportunity for innovations, for new products, exploring and developing new markets for forest sector enterprises. Business models of enterprises offer new products and services. Product innovation is high at the beginning of an industry's life cycle, process innovation is initially later in the life cycle (Hansen, E. 2016). Bioenergy and biomass-based products offer huge new opportunities for diversifying business in the forest cluster. There is a high demand for

innovativeness and extensive thinking for the forest sector. Forest industry is the largest bioenergy user and producer in Finland and provides opportunities for the future. According to the research results, the most important competences that are needed in the forest cluster and biorefineries are product and technological innovation, knowledge of new markets, and business know-how. (Hämäläinen, S., Näyhä A., Pesonen H. 2011)

The circular economy belongs to the key contemporary policy goals both in Europe and in Finland. Wood products can serve as carbon pools during their life cycles and after. (Husgafvel et al. 2018) Policy measures to support secondary building materials should aim at the entire life cycle and different circular strategies. (Nußholz, J., L., K., Rasmussen, F., N., Milios, L. 2019) Circular economy is a regenerative system. (Geissdoerfer, M., Savaget, P., Bocken, N., M., P., Hultink, Erik J. 2017)

Sustainable development appear to have growing importance in the marketplace. (Toppinen A., Röhr, A., Pätäri, S., Lähtinen, K., Toivonen, R. 2018)

Sustainability can be defined as a balanced integration of economic performance, social inclusiveness, and environmental resilience, to the advantage of present and future generations. (Geissdoerfer, M., Savaget, P., Bocken, N., M., P., Hultink, Erik J. 2017)

5. CONCLUSIONS

Markets and trade have a significant role taking into consideration sustainable development and competitiveness. Customers are stakeholders in the sustainable development and green business.

Circular Economy constitutes a business model creating markets. Strategic innovation has a key position in the Bioeconomy.

REFERENCES (alphabetical order)

1. Cashore et al. (2012). Cashore, Benjamin and Bernstein, Steven. Complex global governance and domestic policies: four pathways of influence. Available at: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2346.2012.01090.x/pdf>.
2. CIRCULAR ECONOMY. Available at: http://ec.europa.eu/environment/circular-economy/index_en.htm.
3. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Innovating for Sustainable Growth: A Bioeconomy for Europe 2012. Available at: <https://publications.europa.eu/en/publication-detail/-/publication/1f0d8515-8dc0-4435-ba53-9570e47dbd51>.
4. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - A New EU Forest Strategy in 2013. Available at: <https://eur-lex.europa.eu/legal-content/FI/TXT/?uri=CELEX%3A52013SC0342>.
5. Co-operation Programme 2017–2020. Available at: https://issuu.com/nordic_council_of_ministers/docs/anp2017701_web/2.
6. Finnish Bioeconomy Strategy 2019. Available at: <https://www.bioeconomy.fi/facts-and-contacts/finnish-bioeconomy-strategy/>.
7. Forest Strategy 2014-2020. The EU forest strategy. Available at: <https://ec.europa.eu/info/food-farming-fisheries/forestry/forestry-explained#theeuforeststrategy>. Forest Strategy 2014- 2020.
8. Geissdoerfer, M., Savaget, P., Bocken, N., M., P., Hultink, Erik J. (2017). The Circular Economy – A new sustainability paradigm?. Journal of Cleaner Production. Volume 143, 1 February 2017, Pages 757-768. Available at: <https://www.sciencedirect.com/science/article/pii/S0959652616321023>.
9. Hämäläinen, S., Näyhä A., Pesonen H. (2011). Forest biorefineries – A business opportunity for the Finnish forest cluster. Available at: <https://www.sciencedirect.com/science/article/pii/S095965261100028X>.
10. Hansen, E. (2016). Responding to the Bioeconomy: Business Model Innovation in the Forest Sector. In: Environmental Impacts of Traditional and Innovative Forest-Based Bioproducts, Environmental Footprints and Eco-design of Products and Processes. Ed. A. Kutnar and S.S. Muthu. Available at: https://link.springer.com/chapter/10.1007/978-981-10-0655-5_7.
11. Hetemäki L., Hänninen, R. (2013). Hetemäki, Lauri and Hänninen, Riitta 2013. Suomen metsäalan taloudellinen merkitys nyt ja tulevaisuudessa. *Kansantaloudellinen aikakauskirja* – 109. vsk. – 2 / 2013.
12. Hurmekoski, E., Hetemäki, L. (2013). Studying the future of the forest sector: Review and implications for long-term outlook studies. *Forest Policy and Economics* 34: 17–29. Available at: <http://dx.doi.org/10.1016/j.forpol.2013.05.005>.
13. Husgafvel et al. (2018). Husgafvel, R., Linkosalmi, L., Hughes, M., Kanerva, J., Dahl, O. Forest sector circular economy development in Finland: A regional study on sustainability driven competitive advantage and an assessment of the potential for cascading recovered solid wood, *Journal of Cleaner Production*, Volume 181, 20 April 2018, Pages 483-497. Available at: <https://www.sciencedirect.com/science/article/pii/S0959652617331475>.

14. Kansallinen metsästrategia 2025 – päivitys VALTIOEUVOSTON PERIAATEPÄÄTÖS 21.2.2019. Available at: <http://julkaisut.valtioneuvosto.fi/handle/10024/161386>.
15. Mattila, O. (2015). *Dissertationes Forestales* 198. Towards service-dominant thinking in the Finnish forestry service market. Available at: <https://helda.helsinki.fi/bitstream/handle/10138/156060/towardss.pdf?sequence=1>.
16. Nußholz, J. L. K., Rasmussen F. N., Miliosa, L. (2019). Circular building materials: Carbon saving potential and the role of business model innovation and public policy. *Resources, Conservation and Recycling*. Volume 141, February 2019, Pages 308-316. Available at: <https://www.sciencedirect.com/science/article/pii/S0921344918304099>.
17. Rametsteiner, E., Simula, M. (2003). Forest certification — an instrument to promote sustainable forest management? Available at: <https://www.sciencedirect.com/science/article/pii/S0301479702001913>.
18. Toppinen A., Röhr, A., Pätäri S., Lähtinen, K., Toivonen, R. (2018). The future of wooden multistory construction in the forest bioeconomy – A Delphi study from Finland and Sweden. *Journal of Forest Economics*. Volume 31, April 2018, Pages 3-10. *Journal of Forest Economics*.